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EXAMINER	
SHEPARD, JUSTIN E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/055,712	LEE, HYOUNG-JOO	
	Examiner	Art Unit	
	JUSTIN SHEPARD	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1,5-17,20-31,33-35 and 53-63* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1,5-17,20-31,33-35 and 53-63* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/17/11 have been fully considered but they are not persuasive.

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The applicant argues that Young does not teach “wherein the time information and the display bar are displayed transiently for a predetermined time when a user issues the display command set in said setting the command and disappear after said predetermined time has elapsed.” Young teaches that a “Grazing Titles” pop up is shown on the screen when the channel up button is pressed for 2 seconds and then disappears (column 27, lines 34-37). Young also teaches that grazing overlays can include elapsed program information (figure 10; column 10, lines 21-40). Therefore it is the opinion of the examiner that the elapsed program time shown in figure 10 would appear for 2 seconds when the channel up button is pressed, and then disappear. Therefore the limitation is considered met by the reference.

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The applicant argues that Klosterman does not teach “automatically displaying next program information when a remaining program time reaches a preset time." It is the opinion of the examiner that Young teaches showing the elapsed time of the program (figure 10). Klosterman teaches that instead of the remaining time being displayed (which is shown in figure 10 of Young), that the next program information

would replace the remaining time information (column 10, lines 44-53). Therefore, the combination is considered met by the combination.

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The applicant argues that Blahut teaches a VOD system and therefore cannot meet the EPG time information required by the claim. It is the opinion of the examiner that Young teaches elapsed time which would require the math taught by Blahut as the remaining time would be the total time minus the current time.

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The applicant argues that as Smith teaches a download time and not an elapsed EPG time, that it cannot be used to reject the claims. As Smith teaches replacing a time with a percentage, one of ordinary skill in the art would recognize that this would be a simple substitution.

The remaining arguments are considered to be repeats of the arguments answered above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Young (US Pat 5,727,060).

Referring to claim 17, Young discloses a method of displaying a program progress time of a currently viewed program of a signal receiver (figure 10; column 10, lines 21-40), the method comprising:

receiving program guide information including a program schedule having the currently viewed program (column 17, lines 33-44 and 51-56); and

automatically displaying the program progress time of the currently viewed program simultaneously with the currently viewed program in response to a command from a user to perform a function other than displaying the program progress time upon receipt of the command (column 10, lines 21-40),

the program progress time including a current time (figure 10, 11:00A),

the command being one of an activating a channel up/down key (column 10, lines 21-40) and setting of a preset time prior to a program termination of the currently viewed program,

wherein the program progress time is displayed transiently for a predetermined time in response to the command from the user and automatically disappears after said predetermined time has elapsed (column 10, lines 21-40; column 27, lines 34-37; Note: the column 27 citation states that the Grazing Titles remains on the screen for 2

seconds, and column 10 teaches the grazing overlays, both of which are interpreted as the same information by the examiner).

Referring to claim 20, Young discloses a method as claimed in claim 17, further comprising: generating a setup display for the user to designate ones of a plurality of commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command; and receiving inputs from the user designating the ones of the plurality of the commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command (column 10, lines 21-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 7, 10-12, 30, 33-35 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Russo (US Pat 5,701,383) in view of Klosterman (US Pat 6,078,348).

Referring to claim 1, Young discloses a method of displaying a program progress time on a signal receiver (figure 10) which receives and processes program guide

information containing a program schedule (column 17, lines 33-44 and 51-56), comprising:

storing the program guide information (column 17, lines 51-56);

setting a command of the signal receiver which is commonly usable by a user as a display command to display time information about a currently viewed program (column 10, lines 21-40); and

displaying, the time information about the currently viewed program together with the currently viewed program when the user issues the display command set in said setting a command (figure 10; column 10, lines 21-40),

the time information comprising a current time with respect to the currently viewed program (figure 10, 11:00A);

displaying a display bar representing a total program broadcasting time of the currently viewed program (figure 10), and

wherein the time information and the display bar are displayed transiently for a predetermined time when the user issues the display command set in said setting the command and disappear after said predetermined time has elapsed (column 10, lines 21-40; column 27, lines 34-37).

Young does not disclose a method wherein information is displayed in a numerical format;

the time information comprising a beginning time with respect to the currently viewed program, a program terminating time of the currently viewed program,

the beginning time being below a left-most end of the display bar, the program terminating time being below a right-most end of the display bar, and the current time being below the display bar at a position corresponding to the program progress time;

automatically displaying next program information when a remaining program time reaches a preset time.

In an analogous art, Russo teaches a method wherein information is displayed in a numerical format; the time information comprising a beginning time with respect to the currently viewed program, a program terminating time of the currently viewed program, the beginning time being below a left-most end of the display bar, the program terminating time being below a right-most end of the display bar, and the current time being below the display bar at a position corresponding to the program progress time (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Young and Russo do not disclose a method for automatically displaying next program information when a remaining program time reaches a preset time.

In an analogous art, Klosterman teaches a method for automatically displaying next program information when a remaining program time reaches a preset time (column 10, lines 44-53).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the next program pop-up taught by Klosterman to the program guide pop-up disclosed by Young and Russo. The motivation would have been that informing the user that the current program is The Cosby show when there is only 30 seconds left, which most likely constitute the end credits and a commercial, would not be useful to a user planning on watching television for a prolonged period of time.

Claims 7, 12, 33, 34, and 35 are rejected on the same grounds as claim 1.

Claim 30 is rejected on the same grounds as claim 1, and the additional limitation of an audio output is taught by Klosterman (column 3, lines 15-23) which would be obvious for one to interpret as being part of the TV disclosed by Young (column 3, lines 19-22).

Referring to claim 10, Young discloses a method of displaying a program progress time as claimed in claim 1, wherein the commonly usable command of the signal receiver is a command for a channel up/down (column 10, lines 21-40).

Referring to claim 11, Young discloses a method of displaying a program progress time as claimed in claim 1, wherein the commonly usable command of the signal receiver is a command for a remote controller event (column 10, lines 21-40; figure 22A, part 212).

Referring to claim 61, Young discloses a method of displaying a program progress time as claimed in claim 1, further comprising moving the current time relative to the display bar according to the program progress time (figure 10).

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young, Russo and Klosterman as applied to the claims above, and further in view of Blahut (US Pat 5,532,735).

Referring to claim 5, Young, Russo and Klosterman do not disclose a method of displaying a program progress time as claimed in claim 1, wherein the time information includes the program progress time determined by subtracting the beginning time from the current time.

In an analogous art, Blahut teaches a method of displaying a program progress time as claimed in claim 1, wherein the time information includes the program progress time determined by subtracting the beginning time from the current time (column 5, lines 12-16).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the subtraction method taught by Blahut to the program progress method disclosed by Young. The motivation would have been that subtracting one time from another is a well known way in the art to establish an elapsed time.

Claim 8 is rejected on the same grounds as claim 5.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young, Russo, Klosterman and Blahut as applied to claim 5 above, and further in view of Gerace (US Pat 5,848,396).

Referring to claim 6, Young, Russo, Klosterman and Blahut do not disclose a method of displaying a program progress time as claimed in claim 5, wherein the time information further comprises the remaining program time determined by subtracting the current time from the program terminating time.

In an analogous art, Gerace teaches a method of displaying a program progress time as claimed in claim 5, wherein the time information further comprises the remaining program time determined by subtracting the current time from the program terminating time (column 15, lines 21-22).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the subtraction method taught by Gerace to the program progress method disclosed by Young and Blahut. The motivation would have been that subtracting one time from another is a well known way in the art to establish an elapsed time.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young, Russo, Klosterman and Blahut as applied to claim 8 above, and further in view of Smith (US Pat 5,456,692).

Referring to claim 9, Young, Russo, Klosterman and Blahut do not disclose a method of displaying a program progress time as claimed in claim 8, wherein the time

information further comprises a percentage of the remaining program time as compared with the total program broadcasting time.

In an analogous art, Smith teaches a method of displaying a program progress time as claimed in claim 8, wherein the time information further comprises a percentage of the remaining program time as compared with the total program broadcasting time (column 20, lines 13-17).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the percentage displaying taught by Smith to the progress bar disclosed by Young. The motivation would have been that Young teaches a progress bar that is percentage calibrated, so adding the display of the percentage would have been obvious as the system has already calculated the data (Young: figure 10; column 10, lines 21-40).

Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Russo (US Pat 5,701,383) in view of Blahut (US Pat 5,532,735) in view of Gerace (US Pat 5,848,396).

Referring to claim 13, Young discloses a method of displaying a program progress time in a signal receiver which receives and processes program guide information containing a program schedule (figure 10; figure 22A), comprising:

receiving and storing the program guide information (column 17, lines 33-44 and 51-56);

displaying a display bar representing the total program broadcasting time, including the current time (figure 10); and

when a user issues a command requesting the displaying of the program progress time of the currently viewed program (column 10, lines 21-40);

automatically displaying the display bar so as to indicate a position on the display bar corresponding to the program progress time at a preset time set by the user (figure 10; column 10, lines 21-40), and

display bar are displayed transiently for a predetermined time when the user issues the command and automatically disappear after said predetermined time has elapsed (column 10, lines 21-40; column 27, lines 34-37).

Young does not disclose a method for displaying a program terminating time of the currently viewed program;

determining a total program broadcasting time of a currently viewed program by subtracting a program beginning time from the program terminating time of the currently viewed program;

determining the program progress time by subtracting the beginning time from a current time;

wherein the program terminating time, total program broadcasting time are displayed.

In an analogous art, Russo teaches a method for displaying a program terminating time of the currently viewed program; and wherein the program terminating time, total program broadcasting time are displayed (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Young and Russo do not disclose a method for determining a total program broadcasting time of a currently viewed program by subtracting a program beginning time from the program terminating time of the currently viewed program;

determining the program progress time by subtracting the beginning time from a current time.

In an analogous art, Blahut teaches a method for determining the program progress time by subtracting the beginning time from a current time (column 5, lines 12-16).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the subtraction method taught by Blahut to the program progress method disclosed by Young. The motivation would have been that subtracting one time from another is a well known way in the art to establish an elapsed time.

Young, Russo and Blahut do not disclose a method for determining a total program broadcasting time of a currently viewed program by subtracting a program beginning time from the program terminating time of the currently viewed program.

In an analogous art, Gerace teaches a method for determining a total program broadcasting time of a currently viewed program by subtracting a program beginning

time from the program terminating time of the currently viewed program (column 15, lines 21-22).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the subtraction method taught by Gerace to the program progress method disclosed by Young and Blahut. The motivation would have been that subtracting one time from another is a well known way in the art to establish an elapsed time.

Referring to claim 14, Young discloses a method of displaying a program progress time as claimed in claim 13, further comprising displaying the display bar by distinguishing between a portion of the program progress time elapsed and a remaining program progress time portion (figure 10).

Referring to claim 15, Young discloses a method of displaying a program progress time as claimed in claim 14, further comprising displaying the program progress time on a portion of the display bar between a starting position of the display bar and a position corresponding to the program progress time on the display bar (figure 10).

Referring to claim 16, Young does not disclose a method of displaying a program progress time as claimed in claim 14, comprising displaying the remaining program progress time on a portion of the display bar between a position corresponding to the program progress time and an end position of the display bar.

In an analogous art, Russo teaches a method of displaying a program progress time as claimed in claim 14, comprising displaying the remaining program progress time on a portion of the display bar between a position corresponding to the program progress time and an end position of the display bar (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Claims 21, 22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Klosterman (US Pat 6,078,348).

Referring to claim 21, Young discloses a method of displaying a program progress time of a currently viewed program of a signal receiver (figure 10), the method comprising:

receiving program guide information including a program schedule having the currently viewed program (column 17, lines 33-44 and 51-56);

displaying a program progress time including a current time of the currently viewed program in response to a command from a user to perform a function other than displaying the program progress time upon receipt of the command (figure 10; column 10, lines 21-40); and

wherein the program progress time and next program information are displayed transiently for a predetermined time in response to the command from the user and

automatically disappear after said predetermined time has elapsed (figure 10; column 10, lines 21-40; column 27, lines 34-37).

Young does not disclose a method for automatically displaying next program information of a next program on a same channel as the currently viewed program at a preset time prior to the program termination of the currently viewed program.

In an analogous art, Klosterman teaches a method for automatically displaying next program information of a next program on a same channel as the currently viewed program at a preset time prior to the program termination of the currently viewed program (column 10, lines 44-53).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the next program pop-up taught by Klosterman to the program guide pop-up disclosed by Young. The motivation would have been that informing the user that the current program is The Cosby show when there is only 30 seconds left, which most likely constitute the end credits and a commercial, would not be useful to a user planning on watching television for a prolonged period of time.

Referring to claim 22, Young discloses a method as claimed in claim 17, further comprising: generating a setup display for the user to designate ones of a plurality of commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command, wherein the plurality of commands further comprises displaying the program progress time at the preset time prior to a program termination of the currently viewed program, and for the user to

designate another command to display next program information on a same channel as the currently viewed program at the preset time; receiving inputs from the user designating whether the ones of the plurality of the commands are to function as the command to perform the function other than displaying the program progress time upon receipt of the command (figure 10; column 10, lines 21-40).

Young does not disclose a method for displaying the next program information at the preset time if the first and the another commands are set by the user positively.

In an analogous art, Klosterman teaches a method for displaying the next program information at the preset time if the first and the another commands are set by the user positively (column 10, lines 44-53).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the next program pop-up taught by Klosterman to the program guide pop-up disclosed by Young. The motivation would have been that informing the user that the current program is The Cosby show when there is only 30 seconds left, which most likely constitute the end credits and a commercial, would not be useful to a user planning on watching television for a prolonged period of time.

Referring to claim 31, Young discloses a method of displaying a program progress time of a currently viewed program (figure 10) comprising:

issuing a user-initiated display command (column 10, lines 21-40);

wherein the program progress time is displayed transiently for a predetermined time in response to the display command and automatically disappears after said predetermined time has elapsed (figure 10; column 10, lines 21-40).

Young does not disclose a method for displaying a program terminating time of the currently viewed program and a current time in response to the display command automatically at a preset time set by the user prior to a program terminating time of the currently viewed program; and displaying next program information automatically at the preset time.

In an analogous art, Klosterman teaches a method for displaying a program terminating time of the currently viewed program and a current time in response to the display command automatically at a preset time set by the user prior to a program terminating time of the currently viewed program; and displaying next program information automatically at the preset time (column 10, lines 44-53).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the next program pop-up taught by Klosterman to the program guide pop-up disclosed by Young. The motivation would have been that informing the user that the current program is The Cosby show when there is only 30 seconds left, which most likely constitute the end credits and a commercial, would not be useful to a user planning on watching television for a prolonged period of time.

Claims 23-25, 53-60, 62, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Russo (US Pat 5,701,383).

Referring to claim 23, Young does not disclose a method as claimed in claim 17, wherein the program progress time further includes a program beginning time, and a program termination time of the currently viewed program.

In an analogous art, Russo teaches a method as claimed in claim 17, wherein the program progress time further includes a program beginning time, and a program termination time of the currently viewed program (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Referring to claim 24, Young discloses a method as claimed in claim 23, wherein the program progress time further includes a channel number, a name of a broadcast station and a title of the currently viewed program (figure 10).

Referring to claim 25, Young discloses a method as claimed in claim 23, wherein said displaying displays the current time at a position of the display bar corresponding to a percentage of time elapsed versus a total time of the currently viewed program (figure 10).

Young does not disclose a method wherein displaying comprises displaying the program beginning time at a start of a display bar, the program termination time at an end of the display bar.

In an analogous art, Russo teaches a method wherein displaying comprises displaying the program beginning time at a start of a display bar, the program termination time at an end of the display bar (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Referring to claim 53, Young discloses a display device which displays program progress information of a current program (figure 10), the display device comprising:

a receiver which receives the current program and at least one of a beginning time of the current program and a terminating time of the current program (figure 22A; column 17, lines 33-44 and 51-56);

a display which displays the current program, and the program progress information of the current program, and a progress bar indicating a progress time of the current program and a current time (figure 10),

wherein the progress bar has a first end and a second end (figure 10), and the progress time of the current program is displayed on the progress bar between the first end and the second end (figure 10),

wherein the program progress information is displayed transiently for a predetermined time in response to a display command set by a user and automatically

disappears after said predetermined time has elapsed (column 10, lines 21-40; column 27, lines 34-37).

Young does not disclose a device wherein the program progress information includes the beginning time of the current program and the terminating time of the current program; and the beginning time is displayed in the numerical format at the first end of the progress bar and the terminating time is displayed in the numerical format at the second end of the progress bar, wherein the beginning time of the current program, the current time, and the terminating time of the current program are displayed in a numerical format.

In an analogous art, Russo teaches a device wherein the program progress information includes the beginning time of the current program and the terminating time of the current program; and the beginning time is displayed in the numerical format at the first end of the progress bar and the terminating time is displayed in the numerical format at the second end of the progress bar, wherein the beginning time of the current program, the current time, and the terminating time of the current program are displayed in a numerical format (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Claims 55, 57, and 59 are rejected on the same grounds as claim 53.

Referring to claim 54, Young discloses a display device as claimed in claim 53, further comprising a microprocessor to determine a remaining time of the current program, and the remaining time is displayed as a first color, wherein the progress time of the current program is displayed as a second color and wherein the first color and the second color are displayed on the progress bar (figure 10; column 10, lines 21-40).

Claim 56 is rejected on the same grounds as claim 54.

Referring to claim 58, Young does not disclose a display device according to claim 57, wherein each of the beginning time, the current time and the terminating time is displayed in a respective location relative to the progress bar, such that the respective location depends upon the type of the at least one time information.

In an analogous art, Russo teaches a display device according to claim 57, wherein each of the beginning time, the current time and the terminating time is displayed in a respective location relative to the progress bar, such that the respective location depends upon the type of the at least one time information (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Claim 60 is rejected on the same grounds as claim 58.

Referring to claim 62, Young discloses a method of claim 59, further comprising: converting an IF signal from a tuner of the receiver into a baseband signal; and converting the baseband signal into channel signal to reconstruct a transport stream (TS) (figure 24).

Referring to claim 63, Young discloses a method of claim 62, further comprising: identifying time information indicating a length of a television program based on the retrieved program guide information (figure 10; column 17, lines 33-44 and 51-56).

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Russo (US Pat 5,701,383) in view of Smith (US Pat 5,456,692).

Referring to claim 26, Young discloses a method of displaying a program progress time a current time of a currently viewed program of a signal receiver (figure 10), the method comprising:

receiving program guide information including a program schedule having the currently viewed program (column 17, lines 33-44 and 51-56);

wherein the program progress time are displayed transiently for a predetermined time when a user issues a display command set in said setting a command and

disappear after said predetermined time has elapsed (column 10, lines 21-40; column 27, lines 34-37).

Young does not disclose a method wherein in displaying includes a program beginning time and a program terminating time;

displaying the program progress time of the currently viewed program simultaneously with the currently viewed program automatically at a preset time wherein said displaying the program progress time further comprises displaying the beginning time at a start of a display bar, the program termination time at an end of the display bar, a first percentage number, comprising a numeral, of the time elapsed and a second percentage number, comprising a numeral, of a time remaining versus the total time of the currently viewed program and the current time at a position of the display bar corresponding to a percentage of time elapsed versus a total time of the currently viewed program.

In an analogous art, Russo teaches a method wherein in displaying includes a program beginning time and a program terminating time; and displaying the program progress time of the currently viewed program simultaneously with the currently viewed program automatically at a preset time wherein said displaying the program progress time further comprises displaying the beginning time at a start of a display bar, the program termination time at an end of the display bar, of a time remaining versus the total time of the currently viewed program and the current time at a position of the display bar corresponding to a percentage of time elapsed versus a total time of the currently viewed program (figures 2A, 2B and 2C).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the time bar information taught by Russo to the progress bar disclosed by Young. The motivation would have been to give the user more information to the user regarding how much time is left in the program.

Young and Russo do not disclose a method for displaying a first percentage number, comprising a numeral, of the time elapsed and a second percentage number, comprising a numeral.

In an analogous art, Smith teaches a method for displaying a first percentage number, comprising a numeral, of the time elapsed and a second percentage number, comprising a numeral (column 20, lines 13-17).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the percentage displaying taught by Smith to the progress bar disclosed by Young. The motivation would have been that Young teaches a progress bar that is percentage calibrated, so adding the display of the percentage would have been obvious as the system has already calculated the data (Young: figure 10; column 10, lines 21-40).

Claim 27 is rejected on the same grounds as claim 26.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Klosterman (US Pat 6,078,348) in view of Smith (US Pat 5,456,692).

Referring to claim 28, Young discloses a device for displaying a program progress time (figure 10), comprising:

a receiving unit to receive a program and a program guide containing a program schedule which includes information on a TV program (column 17, lines 33-44 and 51-56);

a processor to produce data for displaying the program progress time transiently for a predetermined time in response to a command from a user (column 10, lines 21-40; figure 22A);

a video output unit to mix video data of the program and said data for displaying the program progress time of the program, to output a resulting signal (figure 22A; figure 10); and

the program progress time including a program beginning time of the TV program, a current time (figure 10),

wherein the program progress time are displayed transiently for a predetermined time in response to the command from the user and automatically disappear after said predetermined time has elapsed (figure 10; column 27, lines 34-37).

Young does not disclose a method with a display to display the resulting signal and next program information automatically at a preset remaining time of the program, and

displaying a progress percentage number, comprising a numeral.

In an analogous art, Klosterman teaches a method with a display to display the resulting signal and next program information automatically at a preset remaining time of the program (column 10, lines 44-53).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the next program pop-up taught by Klosterman to the program guide pop-up disclosed by Young. The motivation would have been that informing the user that the current program is The Cosby show when there is only 30 seconds left, which most likely constitute the end credits and a commercial, would not be useful to a user planning on watching television for a prolonged period of time.

Young and Klosterman do not disclose a method for displaying a progress percentage number, comprising a numeral.

In an analogous art, Smith teaches a method for displaying a progress percentage number, comprising a numeral (column 20, lines 13-17).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the percentage displaying taught by Smith to the progress bar disclosed by Young. The motivation would have been that Young teaches a progress bar that is percentage calibrated, so adding the display of the percentage would have been obvious as the system has already calculated the data (Young: figure 10; column 10, lines 21-40).

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young (US Pat 5,727,060) in view of Smith (US Pat 5,456,692).

Referring to claim 29, Young discloses a device for displaying a program progress time the program progress time including a current time (figure 10) comprising:

a receiving unit to receive a TV program and a TV program guide containing a program schedule which includes information on the TV program (column 17, lines 33-44 and 51-56);

a user interface to enable entry of a command from a user requesting display of the program progress time (column10, lines 21-40);

an audio output unit to generate an audio signal of the TV program (figure 22A, part 210);

a processor to produce On-Screen-Graphic data for displaying the program progress time transiently for a predetermined time in response to the command from the user and based upon the program schedule (figure 10; column 27, lines 34-37);

a video output unit to mix video data of the TV program and On-Screen-Graphic data of the TV program, to output a resulting signal (figure 22A); and

a display to automatically display the resulting signal wherein the command is one of an activating a channel up/down key and setting of a preset time prior to a program termination of a currently viewed program (figure 10; column 10, lines 21-40),

wherein the On-Screen-Graphic data are displayed transiently for a predetermined time in response to the command from the user and automatically disappear after said predetermined time has elapsed (column 10, lines 21-40; column 27, lines 34-37).

Young does not disclose a method for displaying a progress percentage number, comprising a numeral.

In an analogous art, Smith teaches a method for displaying a progress percentage number, comprising a numeral (column 20, lines 13-17).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the percentage displaying taught by Smith to the progress bar disclosed by Young. The motivation would have been that Young teaches a progress bar that is percentage calibrated, so adding the display of the percentage would have been obvious as the system has already calculated the data (Young: figure 10; column 10, lines 21-40).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN SHEPARD whose telephone number is (571)272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justin E Shepard/
Primary Examiner, Art Unit 2424